

CLAIMS

1. A differential amplifier arrangement (53), comprising
  - an input stage (1) comprising a first  
5 differential amplifier (3, 4), with an offset  
compensation stage (10) which comprises at least  
one controllable current source (39) and which is  
connected to a bias input of the first  
differential amplifier (3, 4), and
  - 10 - an output stage (2) comprising a second  
differential amplifier (33), with said output  
stage being arranged downstream of said input  
stage (1).
- 15 2. The differential amplifier arrangement according to  
claim 1,  
c h a r a c t e r i s e d i n t h a t  
a programmable resistor network (7) is provided which  
is arranged in a feedback branch (5) of the first  
20 differential amplifier (3, 4) for controlling the  
amplification of the input stage (1).
3. The differential amplifier arrangement according to  
claim 2,  
25 c h a r a c t e r i s e d i n t h a t  
the programmable resistor network (7) comprises a  
series connection of several resistors (15, 16, 17,  
18, 19, 20, 21, 22) with tapplings being provided  
between the resistors (15, 16, 17, 18, 19, 20, 21,  
30 22), such that depending on the desired amplification,  
a programmable resistor value can be switched in the  
feedback branch (5) of the first differential  
amplifier (3, 4).
- 35 4. The differential amplifier arrangement according to  
any one of claims 1 to 3,  
c h a r a c t e r i s e d i n t h a t

the first differential amplifier comprises a first operational amplifier (3) and a second operational amplifier (4), wherein non-inverting inputs form a symmetric signal input (IN+, IN-) of the differential amplifier arrangement (53) and wherein the output is connected to the respective inverting input in one feedback branch (5, 6) each.

5. The differential amplifier arrangement according to claim 4,

characterised in that in each instance the bias input of the first differential amplifier is formed at the inverting input of the first operational amplifier (3), and at the inverting input of the second operational amplifier (4).

6. The differential amplifier arrangement according to claim 5,

characterised in that the offset compensation stage (10') comprises a bridge circuit with a total of four programmable current sources (39, 40, 41, 42), in which bridge circuit a respective tapping node (K1, K2) of the bridge circuit, is connected to a respective bias input each, of the first operational amplifier (3) and of the second operational amplifier (4).

7. The differential amplifier arrangement according to claim 6,

characterised in that each of the four programmable current sources (39, 40, 41, 42) is coupled to the bias inputs of the first and the second operational amplifier (3, 4) so as to be able to be switched on and off irrespective of each other.

8. The differential amplifier arrangement according to any one of claims 1 to 7,  
c h a r a c t e r i s e d i n t h a t  
the second differential amplifier (51) comprises a  
negative feedback with a programmable resistor (49,  
50) such that the output stage (2') comprises  
programmable amplification.